

We claim

1. A capped xenon metal halide discharge lamp for vehicles is constructed of an arc tube and a gastight outer envelope, the arc tube is made of pure quartz glass and filled with high pressure xenon of 6 atmosphere suit amount of Hg and metal halide pellet, the outer envelope is made of the UV stop quartz glass. In the space between arc tube and envelope the air is exhausted to high vacuum. Characterized in that the section of outer envelope surround arc tube is formed to ball shaped and two walls both of arc tube and ball shaped envelope is nearly parallel.
2. A capped xenon metal halide discharge lamp for vehicles as claimed in claim 1 characterized in that the ball shaped section of envelope can be changed to other shaped section such as ellipse shaped or cylinder shaped but the diameter is a little bigger than other section of this envelope.
3. A capped xenon metal halide discharge lamp for vehicles as claimed in claim 1 and claim 2, characterized in that the end 2c of neck portion of arc tube is enlarged to bell shaped and the diameter of bell edge is a little smaller than the inner diameter of envelope, move the envelope till the edges both of bell and envelope meeting together then heat and melt them by flame for gastight sealing.
4. A capped xenon metal halide discharge lamp for vehicles as claimed in claim 1 claim 2 and claim 3 characterized in that the lamp is firmly fixed on cap in this way: a part near cap surface of outer envelope is firmly bind by a ring shaped hoop with few (three or more such as 4) wing holes. There are few (same number as wing holes) poles implanted on the surface of cap, these poles are just matched with wing holes, insert poles into holes and point welding make the holes and poles melt together.
5. A capped xenon metal halide discharge lamp for vehicles as claimed in claim 1 claim 2 claim 3 and claim 4, characterized in that the ring shaped hoop that fix the lamp on cap can be constructed by one or two or four pieces of metal (such as stainless steel) ribbons.